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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,588	10/28/2005	Kai-Uwe Dudziak	095309.55903US	6561

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CROWELL & MORING LLP
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EXAMINER

MEHTA, MEGHA S

ART UNIT	PAPER NUMBER
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1793

MAIL DATE	DELIVERY MODE
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05/28/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/524,588	Applicant(s) DUDZIAK ET AL.	
	Examiner MEGHA MEHTA	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-33 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 13-33 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/15/2005</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) was submitted on 2/15/2005. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the IDS is being considered by the examiner. Please refer to the applicant's copy of the 1449 submitted herewith.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 13, 16-19, 22, 25 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 101 62 391 Schiffler in view of US 3,925,875 Doke.

Regarding independent claim 13, Schiffler teaches a method of joining a plate to a hydroformed piece where both pieces are inserted into the chamber, the chamber is pressurized and a die punches the pieces such that a section of the component is bent into the hollow part in the abstract and figure 3. Schiffler does not teach the slug widening towards the free end or positioned behind the hole.

Doke teaches a widening slug behind the hole in column 9, lines 17-22 and figure 7.

It would have been obvious to combine Schiffler and Doke because they are both punching holes to join metal pieces. It would have been obvious to include the widening and position of Doke in the method of Schiffler because a wider slug, which must end up behind the hole, ensures that the pieces will not fall apart, as Doke explains in column 9, lines 34-37.

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Regarding claim 16, Doke further teaches cutting the link and slug together with the die in column 9, lines 2-8.

Regarding claims 17 and 22, Schiffler further teaches pressurizing the walls of the hollow section and plate in the abstract. Schiffler does not teach two diametrically opposed links and slugs. Doke teaches diametrically opposed links and slugs in column 9, lines 17-22.

It would be obvious to combine the opposing links and slugs of Doke into the pressurizing method of Schiffler because this formation ensures a better joining connection as Doke teaches in column 9, lines 34-37.

Regarding claims 18 and 25, Schiffler further teaches punching the hollow section according to the position of the component in the abstract. Schiffler does not teach punching several links. Doke teaches punches several links out of the wall in at least two areas, in this case, separate halves of the punched section in column 9, lines 17-22.

It would have been obvious to combine the several links of Doke into the punching position of Schiffler because the multiple links and coordinated punching provides for a formation that ensures better joining as taught by Doke in column 9, lines 34-37.

Regarding claims 19 and 28, Schiffler further teaches expanding a circular section into a box in the figures.

4. Claims 14-15, 20-21, 23-24 and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 101 62 391 Schiffler and US 3,925,875 Doke in view of US 3,793,791 Wootten.

Regarding claims 14 and 15, Schiffler teaches a method of joining a plate to a hydroformed piece. Doke teaches the punched slugs and links. Neither Schiffler nor Doke teach

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precutting the component or stamping the component prior to inserting it into the tool. Wootten teaches perforating a sheet and then poking the parts out in the abstract. Wootten does not teach performing this process and placing the component into the tool. However, Schiffler teaches placing the component into the tool.

It would have been obvious to combine Schiffler and Doke with Wootten because they are all forming metal plates. It would have been obvious to add the perforations of Wootten into the process of Schiffler and Doke because the later severing requires less force, as admitted on page 6 of the applicant's specification.

Regarding claims 20 and 21, Schiffler further teaches pressurizing the walls of the hollow section and plate in the abstract. Schiffler does not teach two diametrically opposed links and slugs. Doke teaches diametrically opposed links and slugs in column 9, lines 17-22.

It would be obvious to combine the opposing links and slugs of Doke into the pressurizing method of Schiffler because this formation ensures a better joining connection as Doke teaches in column 9, lines 34-37.

Regarding claims 23 and 24, Schiffler further teaches punching the hollow section according to the position of the component in the abstract. Schiffler does not teach punching several links. Doke teaches punches several links out of the wall in at least two areas, in this case, separate halves of the punched section in column 9, lines 17-22.

It would have been obvious to combine the several links of Doke into the punching position of Schiffler because the multiple links and coordinated punching provides for a formation that ensures better joining as taught by Doke in column 9, lines 34-37.

Regarding claims 26 and 27, Schiffler further teaches expanding a circular section into a box in the figures.

5. Claims 29-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 101 62 391 Schiffler in view of US 3,925,875 Doke further in view of US 5,918,494 Kojima et al.

Regarding independent claim 29, Schiffler teaches a high pressure tool that is used to join a hollow section and a component by hydroforming and a punching die in the abstract.

Schiffler does not teach using a die to cut the link and slug out of the wall and undercutting the hole edge. Doke teaches this in column 9, lines 17-22. It would have been obvious to combine Schiffler and Doke because they are both punching holes to join metal pieces. It would have been obvious to include the cutting and undercutting of Doke in the device of Schiffler because a slug which must end up behind the hole ensures that the pieces will not fall apart, as Doke explains in column 9, lines 34-37.

Schiffler also does not teach sealing dies or a fluid high pressure generator. Kojima teaches dies used to seal ends of a tube in column 12, lines 19-22 and a fluid pump in column 2, lines 13-16. It would have been obvious to combine Schiffler and Kojima because they both teach hydroforming tubes. It would have been obvious to include the end sealing of Kojima in the device of Schiffler because of the greater variety of uses the tubes made by this device can accommodate if the ends can be either sealed or open.

Regarding claim 30, Schiffler further teaches the die penetration in conjunction with internal pressure. Schiffler does not teach the tapered wall of the die that presses the link and slug together. Doke teaches this in column 8, lines 54-61 and column 9, lines 17-22.

It would have been obvious to include the tapered die of Doke in the method of Schiffler because the pressing of the link and slug together ensures a better joining as taught in column 9, lines 34 -37 in Doke.

Regarding claim 31, Schiffler further teaches two separate dies **3** and **4** in the figures.

Regarding claims 32 and 33, Doke further teaches a die with displacement chamfers following both sides of the cutting edge in column 8, lines 54-61.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MEGHA MEHTA whose telephone number is (571)270-3598. The examiner can normally be reached on Monday to Friday 7:30 am to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Megha Mehta/

/Jerry A Lorengo/

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